PATER 1 0 2004 PATER A PRADEMARK OFFICE

Sequence Listing

<110> Joh-E IKEDA Kenji YAMAMOTO

<120> APOPTOSIS INHIBITORY PROTEIN, GENE ENCODING THE PROTEIN AND CDNA THEREOF

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cta acc atg tgc ttg atg age as att aca gcc cag aga cta aga cca Leu Thr Met Cys Leu Met Ser Lys Phe Thr Ala Gln Arg Leu Arg Pro 725  ttc tac cgg ttt tta agt cct gcc ttc caa gaa ttt ttg cgg ggg atg 740  agg ctg att gaa ctc ctg gat tca gat agg cag aca cat caa gat ttg 740  agg ctg att gaa ctc ctg gat tca gat agg cag gaa cat caa gat ttg 755  gga ctg tat cat ttg aaa caa at cac ac tca ccc atg atg act gta agg 61y Leu Tyr His Leu Lys Gln Ile Asn Ser Pro Met Met Thr Val Ser 61y Leu Tyr His Leu Lys Gln Ile Asn Ser Pro Met Met Thr Val Ser 61y Cca caa aat ttt ttg aac tat gtc tcc agc ctc ctt ca aca aaa Ala Gly Pro Lys Ile Val Ser His Leu Leu His Leu Vah Asp Asn Lys 810  gag tta ttg gag aat at ct gtg tct cat ttg gtg gat aac aaa Ala Gly Pro Lys Ile Val Ser His Leu Leu His Leu Vy His Gln 825  Gca gaa att ca ctg cag atg cag tta ctt agg gat taa ttg 826  Cca gaa att ca ctg cag atg cag tta ctt agg gat ta ttg 827  Cca gaa att ca ctg cag atg cag tta ctt agg gat tg tgg caa att Cys Pro Gln Ala Tyr Peh Ser Met Val Ser Glu His Leu Leu His Leu Leu Lys His Gln 835  Gcc ttg aaa act gct tat cat gg ttc cag ttg cag tta ctt agg gg ttg tgg caa at can cyg atg cag cag cag ctg cag atg cag cag cag cag cag cag cag cag cag ca	ttt Phe	aat Asn	gat Asp	Asp	gat	ctc Leu	gca Ala	gaa Glu	Ala	ggg	gtt Val	gat Asp	gaa Glu	Asp	gaa	gat Asp	2457
tect acc Ggg ttt tta agt cet gac ttc caa gaa ttt cit gcg ggg atg Phe Tyr Arg Phe Leu Ser Pro Ala Phe Gin Glu Phe Leu Ala Gly Met 740  agg ctg att gaa ctc ctg gat tca gat agg cag gaa cat caa gat ttg 2601  755	cta Leu	acc Thr	Met	tgc	ttg Leu	atg Met	agc Ser	Lys	ttt	aca Thr	gcc Ala	cag Gln	Arg	cta	aga Arg	cca Pro	2505
agg ctg att gaa ctc ctg gat tca gat agg cag gaa cat caa gat ttg Arg Leu Ile Glu Leu Leu Asp Ser Asp Arg Gln Glu His Gln Asp Leu 755 gga ctg tat cat ttg gaa caa atc aac tca ccc cat g atg act gta agc Gly Leu Tyr His Leu Lys Gln Ile Asn Ser Pro Met Met Thr Val Ser 775 gcc tac aac aat ttt ttg aac tat gtc tcc agc ctc cct tca aca aaa Ala Tyr Asn Asn Phe Leu Asn Tyr Val Ser Ser Leu Pro Ser Thr Lys 780 gca ggg ccc aaa att gtg tct cat ttg ctc agc ctc cct tca aca aaa Ala Gly Pro Lys Ile Val Ser His Leu Leu His Leu Val Sep Ser Thr Lys 805 gag tca ttg gag aat ata tct gaa agt gaa agt gaa agt gas Blo Ser Leu Glu Asn Ile Ser Glu Asn Asp Asp Tyr Leu Lys His Gln 825 gca gaa att tca ctg cag atg cag tta ctt agg gga tag cac cag gaa att tca ctg cag atg cag tta ctt agg gga tag tg tg tg tg tcc 826 cca gaa att tca ctg cag atg cag tta ctt agg gga ttg tg tg tg 827 cca gaa att tca ctg cag atg cag tta Ctc agg aac cat tta ctg gtt 827 cca gaa att tca ctg cag atg cag tta Ctc agg gga ttg tg tg caa 840 tgt cca caa gct tac ttt caa agg cad cat tta cg ggt tgt tct Cys Pro Gln Ala Tyr Phe Ser Met Val Ser Glu His Leu Leu Val Leu 855 gcc ctg aaa act gct tat caa agc aac act gtt gct gct gtt ctc Cys Pro Gln Ala Tyr Gln Ser Asn Thr Val Ala Ala Cys Ser Pro 880  ctt gtt ttg caa ttc ctt caa ggg aga aca ctg gtt gt tct cca 885 acc tta cag tac ttt ttc gac cac ca gaa act tta ctg ggt gcg ctt 885 acc tta cag tac ttt tc gac cac cac gaa agc tt tag ggg ggg ggg ggg 885 cac tta cag tac ttt tc gac cac cac gaa agc tt tag ggg ggg 895 ttt ttg ttg caa tcc ctc ca ata cga gga aat aaa aca cta cca cac ag gaa act cac cac ag gaa act act acg ggg a acg act act tta ggg gaa acc act acg ggg act act acg gaa aca ct tag ggg acg aca cac acc ag gaa acc act acg ggg acc act acg gac acc acg gaa acc act acg gac acc acg gaa acc acc acc acc acc	ttc Phe	Tyr	caa	ttt Phe	tta Leu	agt Ser	Pro	gcc	ttc Phe	caa Gln	gaa Glu	Phe	ctt	gcg Ala	ggg Gly	atg Met	2553
2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985   2985	Arg	cta	att Ile	gaa Glu	ctc Leu	Leu	gat	tca Ser	gat Asp	agg Arg	Gln	gaa	cat His	caa Gln	gat Asp	Leu	2601
Sec   tac   aac   aat   tit   tit   tit   dac   tit   tit   tit   tit   dac   tit   tit   dac   tit   tit   dac   dac	aaa	ctg Leu	tat Tyr	cat His	Leu	aaa	caa Gln	atc Ile	aac Asn	Ser	ccc	atg Met	atg Met	act Thr	Va I	agc	2649
gca ggg ccc aaa att gtg tct cat ttg ctc cat tta gtg gat aac aaa 2745   Ala Gly Pro Lys Ile Val Ser His Leu Leu His Leu Val Asp Asn Lys 805   gag tca ttg gag aat ata tct gaa aat gat gac tac tta aag cac cag 815   Ser Leu Glu Asn Ile Ser Glu Asn Asp Asp Tyr Leu Lys His Gln 820   cca gaa att tca ctg cag atg cag tta ctt agg gga ttg tgg caa att 2841   Pro Glu Ile Ser Leu Gln Met Gln Leu Leu Arg Gly Leu Trp Gln Ile 835   tgt cca caa gct tac ttt tca atg gtt tca gaa cat tta ctg gtt ctg 2889   Cys Pro Gln Ala Tyr Phe Ser Met Val Ser Glu His Leu Leu Val Leu Val Leu 865   gcc ctg aaa act gct tat caa agc aac act gct tat cat agg aca cat tta ctg gtt ccc a aa act gct tat can agg aac act gct tat can agg aca cat tta cgg gtg tcc gaa act ctg gct gcg gtg tcc yan act leu Lys Thr Ala Tyr Gln Ser Asn Thr Val Ala Ala Cys Ser Pro 870   tt gtt ttg caa ttc ctt caa ggg aga aca ctg gct gcg gtg tcc gaa act leu Lys Thr Ala Tyr Gln Ser Asn Thr Val Ala Ala Cys Ser Pro 880   act tta cag tac ttt ttc gac acc cca gaa agc ttc ttg ggg ggd gdd gdd add gat acc cca gag aca ctg leu Gly Ala Leu 885   asc tta cag tac ttt ttc gac acc cca gaa agc ttc ttg ttg agg 3033   Asn Leu Gln Tyr Phe Phe Asp His Pro Glu Ser Leu Gly Ala Leu 890   agc atc cac ttc cca ata cga gga aat aag aca tca ccc aga gca cat sac ser Ile His Phe Pro Ile Arg Gly Asn Lys Thr Ser Pro Arg Ala His 915   gat cag gac tat gct tct gcc ttt gaa aca tca ccc aga gtg cca act ata 1829   gat cag gac tat gct tct gcc ttt gaa aga acc tat gaa tgg gag cga 3129   gat cag gac tat gct tct gcc ttt gaa aga acc tat gaa tgg gag cga 3129   gat cag gac tat gct tct gcc ttt gaa acc tat gaa tgg gad acc cac acc acc acc acc acc acc acc a	gcc Ala	tac Tyr	aac Asn	Asn	ttt	ttg Leu	aac Asn	tat Tyr	Val	tcc	agc Ser	ctc Leu	cct Pro	Ser	aca	aaa Lys	2697
gag tca ttg gag aat ata tct gaa aat gat gac tac tta aag cac cag 2793 Glu Ser Leu Glu Asn Ile Ser Glu Asn Asp Asp Tyr Leu Lys His Gln 820 cca gaa att tca ctg cag atg cag tta ctt agg gga ttg tgg caa att Pro Glu Ile Ser Leu Gln Met Gln Leu Leu Arg Gly Leu Trp Gln Ile 835 tgt cca caa gct tac ttt tca atg gtt tca gaa cat tta ctg gtt ctt Cys Pro Gln Ala Tyr Phe Ser Met Val Ser Glu His Leu Leu Val Leu Wal Leu 875 gcc ctg aaa act gct tat caa agc aac act gtt gcg tgt tct cca 880 tgt ttg gaa aaa act gct tat caa agc aac act gtt gcg gcg tgt tct cca 880 ttt gtt ttg caa ttc ctt caa ggg aga aca ctg gtt ggg ggg tgt tct cca 880 ttt gtt ttg caa ttc ctt caa ggg aga aca ctg ggg ggg tgt tct cca 880 ttt gtt ttg caa ttt ttc gac cac cca gaa agc ttg tgg ggg cgg ctt Phe Val Leu Gln Phe Leu Gln Gly Arg Thr Leu Thr Leu Gly Ala Leu 885 aac tta cag tac ttt ttc gac cac cca gaa agc ttg tca ttg tg agg 885 ags act cac ttc cca ata cga gga aat aag aca tca cta ttg tg agg 885 ags act cac ttc cca ata cga gga aat aag aca tca cca gg gga cat 887 ser Ile His Phe Pro Ile Arg Gly Asn Lys Thr Ser Pro Arg Ala His 915 gat cag gac tat gct tct gcc ttt gaa caa act caa gat gga gag cga cat 887 ser Ile Glu Thr Cys Phe Asp Lys Ser Gln Val Pro Thr Ile 935 gat cag gac tat gct tct gcc ttt gaa cct atg aat gaa tgg gag cga 887 ser Ita gct gaa aaa gag gat aat gfa aag agc tat atg gat gaa atg cag cac act ata and sha phe Glu Pro Met Asn Glu Trp Glu Arg 936 aat tta gct gaa aaa gag gat aat gfa aag agc tat atg gaa act tct cca 83273 ser glo gag gca tca cac cac cca gac ctt and gaa gac tat atg gat atg cag 8380 ser glo yala Arg Asp Met Gln 832 8330 ser glo yala Asp Asn Val Lys Ser Tyr Met Asp Met Gln 832 8330 ser glo yala aaa gad ctt tgg aaa ctt tct cca 83273 ser glo yala Asp Asn Val Asp Asn Val Asp Asn Asp Ile Asp 8395 ser glo yala Asp Asn Val Asp Asn Asp Ile Asp 830 ser gat	gca Ala	ggg Gly	Pro	aaa	att Ile	gtg Val	tct Ser	His	ttg	ctc Leu	cat His	tta Leu	Val	gat	aac Asn	aaa Lys	2745
cca gaa att tca ctg cag atg cag tta ctt agg gga ttg tgg caa att Pro Glu Ile Ser Leu Gln Met Gln Leu Leu Arg Gly Leu Trp Gln Ile 850 tgt cca caa gct tac ttt tca atg gtt tca gaa cat tta ctg gtt ctc 2889 tgt cca caa gct tac ttt tca atg gtt tca gaa cat tta ctg gtt ctc cca 855 tgt cca caa act gct tac ttt tca atg gtt tca gaa cat tta ctg gtt ctc cca 865 tgt gcc ctg aaa act gct tat caa agc aac act gtt gct gcg tgt tct cca 2937 ala Leu Lys Thr Ala Tyr Gln Ser Asn Thr Val Ala Ala Cys Ser Pro 870 tgt gtt ttg caa ttc ctt caa ggg aga aca ctg gct ttg gcg ctt gcg ctt gtt gcg gcg	gag Glu	Ser	ttg	gag Glu	aat Asn	ata Ile	Ser	gaa	aat Asn	gat Asp	gac Asp	Tyr	tta	aag Lys	cac His	cag Gln	2793
tgt cca caa gct tac ttt tca atg gtt tca gaa cat tta ctg gtt ctt cys Pro Gln Ala Tyr Phe Ser Met Val Ser Glu His Leu Leu Val Leu 855 865 gcc ctg aaa act gct tat caa agc aac act gtt gct gcg tgt tct cca 2937 Ala Leu Lys Thr Ala Tyr Gln Ser Asn Thr Val Ala Ala Cys Ser Pro 870 875 ttt gtt ttg caa ttc ctt caa ggg aga aca ctg gcg tgt tct cca 2937 Ala Leu Gln Phe Leu Gln Gly Arg Thr Leu Thr Leu Gly Ala Leu 885 aca tta cag tac ttt ttc gac cac cca gaa agc ttg tca ttg ttg agg 3033 Asn Leu Gln Tyr Phe Phe Asp His Pro Glu Ser Leu Ser Leu Leu Arg 900 agc atc cac ttc cca ata cga gga aat aag aca tca ccc aga gca cat Ser Ile His Phe Pro Ile Arg Gly Asn Lys Thr Ser Pro Arg Ala His 915 920 935 gas cag aca tca cag gga aca tca cag gga aca tca cag gga aca tca cag gga aca tca cac ggg gca cat 3081 gas cag gca cat ata gct gga aca tca cag gga cac act ata gtt tta gac aca tca cag gga cac act ata gtt tta gac aca tca cag gga cac act ata gea gga cac cat gas gca cat ata gct gga aca cag gac cac act ata gtt cag gac cac gga aca tca cag gga cac act aca gac cac c	Pro	gaa	att Ile	tca Ser	ctg Leu	Gln	atg	cag Gln	tta Leu	ctt Leu	Arg	gga	ttg Leu	tgg Trp	caa Gln	Ile	2841
gcc ctg aaa act gct tat caa agc aac act gtt gcg tgt tct cca 2937 Ala Leu Lys Thr Ala Tyr Gln Ser Asn Thr Val Ala Ala Cys Ser Pro 875  ttt gtt ttg caa ttc ctt caa ggg aga aca ctg act ttg ggt gcg ctt 2985 Phe Val Leu Gln Phe Leu Gln Gly Arg Thr Leu Thr Leu Gly Ala Leu 885 aac tta cag tac ttt ttc gac cac cca gaa agc ttg tca ttg ttg agg 3033 Asn Leu Gln Tyr Phe Phe Asp His Pro Glu Ser Leu Ser Leu Leu Arg 990 agc atc cac ttc cca ata cga gga aat aag aca tca ccc aga gca cat Arg Arg 910 agc atc cac ttc gaa aca tgt ttt gac aaa tca cag ggg gaa at tca gt gaa aca tgt ttt ta gac aaa tca cag gtg cca act ata Phe Ser Val Leu Glu Thr Cys Phe Asp Lys Ser Gln Val Pro Thr Ile 945 gat cag gac tat gct tct gcc ttt gaa cct aga gtg cca act ata 3129 Asn Leu Ala Glu Lys Glu Asp Asn Val Lys Ser Tyr Met Asp Met Gln 965 cgc agg gca tca cac gac ctt agt act ggc tta tgg aaa ctt tcc cca 3273 Arg Arg Arg Ala Ser Pro Asp Leu Ser Thr Gly Tyr Trp Lys Leu Ser Pro 990 aag cag tac aag atc ccc tg gaa att ccc tg gaa gtc gaa gtc gat att ggt aat gat 3321 Lys Gln Tyr Lys lle Pro Cys Leu Glu Val Asp Val Asp Asp Ile Asp 995	tat	cca Pro	caa Gln	gct Ala	Tyr	ttt	tca Ser	atg Met	gtt Val	Ser	gaa	cat His	tta Leu	ctg Leu	Val	ctt	2889
ttt gtt ttg caa ttc ctt caa ggg aga aca ctg act ttg ggt gcg ctt 885  aac tta cag tac ttt ttc gac cac cca gaa agc ttg tca ttg ttg agg 900 agc atc cac ttc cca ata cga gga aat aag aca tca ccc aga gca cat cac ttc cca ata cga gga aat aag aca tca ccc aga gca cat ser lle His Phe Pro Ile Arg Gly Asn Lys Thr Ser Pro Arg Ala His 915  gat cag gt ctg gaa aca tgt ttt gac aaa tca cag gtg cca act ata Phe Ser Val Leu Glu Thr Cys Phe Asp Lys Ser Gln Val Pro Thr Ile 945  gat cag gac tat gct tct gcc ttt gaa cct atg aat gaa tgg gag cga 3177  Asp Gln Asp Tyr Ala Ser Ala Phe Glu Pro Met Asn Glu Trp Glu Arg 950  aat tta gct gaa aaa gag gat aat gta aag agc tat atg gat atg cag 3225  Asn Leu Ala Glu Lys Glu Asp Asn Val Lys Ser Tyr Met Asp Met Gln 960  aag cag tac aag att ccc tg cta gaa gtc gat gtg aat gat att gat 3321  Lys Gln Tyr Lys Ile Pro Cys Leu Glu Val Asp Val Asn Asp Ile Asp 1000  1000	gcc Ala	ctg Leu	aaa Lys	Thr	gct	tat Tyr	caa Gln	agc Ser	Asn	act	gtt Val	gct Ala	gcg Ala	Cys	tct	cca Pro	2937
aac tta cag tac ttt ttc gac cac cca gaa agc ttg tca ttg ttg agg 3033 Asn Leu Gln Tyr Phe Phe Asp His Pro Glu Ser Leu Ser Leu Leu Arg 900 agc atc cac ttc cca ata cga gga aat aag aca tca ccc aga gca cat 3081 Ser Ile His Phe Pro Ile Arg Gly Asn Lys Thr Ser Pro Arg Ala His 915 920 920 925 925 930 ttt tca gtt ctg gaa aca tgt ttt gac aaa tca cag gtg cca act ata 3129 Phe Ser Val Leu Glu Thr Cys Phe Asp Lys Ser Gln Val Pro Thr Ile 935 935 930 aat tta gct gaa aaa gag gat aat gaa cct atg aat gaa tgg gag cga 3177 Asp Gln Asp Tyr Ala Ser Ala Phe Glu Pro Met Asn Glu Trp Glu Arg 950 aat tta gct gaa aaa gag gat aat gta aag agc tat atg gat atg cag 3225 Asn Leu Ala Glu Lys Glu Asp Asn Val Lys Ser Tyr Met Asp Met Gln 965 970 970 970 975 cgc agg gca tca cag act cat gaa gct tat atg gat atg cag 3225 Arg Arg Ala Ser Pro Asp Leu Ser Thr Gly Tyr Trp Lys Leu Ser Pro 980 aag cag tac aag att ccc tgt cta gaa gtc gat gtg aat gat att gat 3321 Lys Gln Tyr Lys Ile Pro Cys Leu Glu Val Asp Val Asn Asp Ile Asp 995 1000 1005	ttt Phe	gtt Val	Leu	caa	ttc Phe	ctt Leu	caa Gln	Gly	aga	aca Thr	ctg Leu	act Thr	Leu	ggt	gcg Ala	ctt Leu	2985
agc atc cac ttc cca ata cga gga aat aag aca tca ccc aga gca cat 3081  Ser Ile His Phe Pro Ile Arg Gly Asn Lys Thr Ser Pro Arg Ala His 915  1tt tca gtt ctg gaa aca tgt ttt gac aaa tca cag gtg cca act ata 3129  Phe Ser Val Leu Glu Thr Cys Phe Asp Lys Ser Gln Val Pro Thr Ile 935  gat cag gac tat gct tct gcc ttt gaa cct atg aat gaa tgg gag cga 3177  Asp Gln Asp Tyr Ala Ser Ala Phe Glu Pro Met Asn Glu Trp Glu Arg 960  aat tta gct gaa aaa gag gat aat gta aag agc tat atg gat atg cag 3225  Asn Leu Ala Glu Lys Glu Asp Asn Val Lys Ser Tyr Met Asp Met Gln 965  cgc agg gca tca cca gac ctt agt act ggc tat tgg aaa ctt tct cca 3273  Arg Arg Ala Ser Pro Asp Leu Ser Thr Gly Tyr Trp Lys Leu Ser Pro 980  aag cag tac aag att ccc tgt cta gaa gtc gat gtg aat gat att gat 3321  Lys Gln Tyr Lys Ile Pro Cys Leu Glu Val Asp Val Asp Asn Asp Ile Asp 995		Leu	cag				Āsp	cac				Leu	tca				3033
ttt tca gtt ctg gaa aca tgt ttt gac aaa tca cag gtg cca act ata Phe Ser Val Leu Glu Thr Cys Phe Asp Lys Ser Gln Val Pro Thr Ile 935 gat cag gac tat gct tct gcc ttt gaa cct atg aat gaa tgg gag cga Asp Gln Asp Tyr Ala Ser Ala Phe Glu Pro Met Asn Glu Trp Glu Arg 950 aat tta gct gaa aaa gag gat aat gta aag agc tat atg gat atg cag Asn Leu Ala Glu Lys Glu Asp Asn Val Lys Ser Tyr Met Asp Met Gln 965 cgc agg gca tca cca gac ctt agt act ggc tat tgg aaa ctt tct cca Arg Arg Ala Ser Pro Asp Leu Ser Thr Gly Tyr Trp Lys Leu Ser Pro 980 aag cag tac aag att ccc tgt cta gaa gtc gat gtg aat gat att gat Lys Gln Tyr Lys Ile Pro Cys Leu Glu Val Asp Val Asn Asp Ile Asp 995 1000 1010	Ser	atc	cac His	ttc Phe	cca Pro	Ile	cga	gga Gly	aat Asn	aag Lys	Thr	tca	ccc Pro	aga Arg	gca Ala	His	3081
gat cag gac tat gct tct gcc ttt gaa cct atg aat gaa tgg gag cga 3177 Asp Gln Asp Tyr Ala Ser Ala Phe Glu Pro Met Asn Glu Trp Glu Arg 950 aat tta gct gaa aaa gag gat aat gta aag agc tat atg gat atg cag 3225 Asn Leu Ala Glu Lys Glu Asp Asn Val Lys Ser Tyr Met Asp Met Gln 965 cgc agg gca tca cca gac ctt agt act ggc tat tgg aaa ctt tct cca 3273 Arg Arg Ala Ser Pro Asp Leu Ser Thr Gly Tyr Trp Lys Leu Ser Pro 980 aag cag tac aag att ccc tgt cta gaa gtc gat gtg aat gat att gat 3321 Lys Gln Tyr Lys Ile Pro Cys Leu Glu Val Asp Val Asn Asp Ile Asp 995	ttt				Ğlu	aca				Lys	tca				Thr	ata	3129
aat tta gct gaa aaa gag gat aat gta aag agc tat atg gat atg cag Asn Leu Ala Glu Lys Glu Asp Asn Val Lys Ser Tyr Met Asp Met Gln 965  cgc agg gca tca cca gac ctt agt act ggc tat tgg aaa ctt tct cca Arg Arg Ala Ser Pro Asp Leu Ser Thr Gly Tyr Trp Lys Leu Ser Pro 980  aag cag tac aag att ccc tgt cta gaa gtc gat gtg aat gat att gat Lys Gln Tyr Lys Ile Pro Cys Leu Glu Val Asp Val Asn Asp Ile Asp 995  1000  3223  3223  3223  3223  3223  3223  3223  3223				Tyr	gct				Ğlu	cct				Trp	gag		3177
cgc agg gca tca cca gac ctt agt act ggc tat tgg aaa ctt tct cca 3273 Arg Arg Ala Ser Pro Asp Leu Ser Thr Gly Tyr Trp Lys Leu Ser Pro 980 aag cag tac aag att ccc tgt cta gaa gtc gat gtg aat gat att gat 3321 Lys Gln Tyr Lys Ile Pro Cys Leu Glu Val Asp Val Asn Asp Ile Asp 995 1000 1005 3273			Ala	g <u>a</u> a				Asn	gta				Met	gat			3225
aag cag tac aag att ccc tgt cta gaa gtc gat gtg aat gat att gat 3321 Lys Gln Tyr Lys Ile Pro Cys Leu Glu Val Asp Val Asn Asp Ile Asp 995 1000 1005 1010		Arg	gca				Leu	agt				Trp	aaa				3273
	Lys	cag			Ile	Pro	tgt			val	Asp 1005	gtg			Ile	Asp	3321

gtt gta ggc Val Val Gly	cag gat Gln Asp 1015	atg ctt Met Leu	gag a Glu I	tt cta le Leu 1020	atg ac Met Th	a gtt ir Val	Phe S	ca Ser 025	gct Ala	3369
tca cag cgc Ser Gln Arg	atc gaa	ctc cat Leu His	tta a Leu A 10	ac cac sn His	agc ag Ser Ar	g Gly	ttt	ita	gaa Glu	3417
agc atc cgc Ser Ile Arg 1045	cca act	Leu Glu	ctq t	ct aag	gcc to Ala Se	t gtc r val 1055	acc a Thr L	ag ys	tgc Cys	3465
tcc ata agc Ser Ile Ser 1060	Lys Leu	Glu Leu 1065	Ser A	la Ala	Glu GI 107	n Glu 70	Leu L	.eu	Leu	3513
acc ctg cct Thr Leu Pro 1075	1	.080		· 1	.085			1	.090	3561
caa gac caa Gln Asp Gln	Ile Phe 1095	Pro Asn	Leu A	sp Lys 1100	Phe Le	eu Cys	Leu l	.ys L05	Glu	3609
	Asp Leu 1110	Glu Gly	Asn I 11	le Asn 15	Val Ph	ne Ser 1	Val 1 L120	: le	Pro	3657
gaa gaa ttt Glu Glu Phe 1125	Pro Asn	Phe His	His M L130	et Glu	Lys Le	u Leu 1135	Ile (	iln	Ile	3705
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cca aac ctt Pro Asn Leu 1155	His Val	ttc cat Phe His 160	ctg a Leu L	ys Cys	aac tt Asn Ph .165	c ttt ne Phe	tcg g Ser Å	sp	ttt Phe 170	3801
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